

REMARKS

This is in response to the Office Action dated June 9, 2010. With this response, claim 1 is amended and all pending claims 1, 4-24, 26-29, and 32-34 are presented for reconsideration and favorable action.

In the Office Action, the claims were again rejected. The rejection is now based upon Eryurek US6017143 in view of Flaemig US7054765 and further in view of Meyer-Grafe US6957115. However, it is believed the amended claims are patentably distinct from the cited references.

Independent claim 1 includes safety response circuitry. The safety response circuitry is in the device and is separate from two components between which the databus carries data. This is not shown in Eryurek et al. The Office Action cites the Abstract along with column 1, lines 44-64 in Figure 1 of Eryurek as teaching safety response circuitry. Those sections read as follows:

Abstract

A process device couples to a process control loop. The process device receives process signals. A memory in the process device contains a nominal parameter value and a rule. Computing circuitry calculates a statistical parameter of the process signal and operates on the statistical parameter and the stored nominal value based upon the stored rule and responsively provides an event output based upon the operation. Output circuitry provides an output in response to the event output.

A device in a process control system includes an input which receives a process signal. The device includes memory containing nominal parameter values and rules. In one embodiment, a nominal parameter value relates to trained value(s) of the process signal and sensitivity parameter(s). Computing circuitry in the device calculates statistical parameters of the process signal and operates on the statistical parameters and the stored

nominal parameter values based upon the stored rules. The computing circuitry provides an event output related to an event in the process control system based upon the evaluation of the rules. Output circuitry provides an output in response to the event output. In one embodiment, the statistical parameters are selected from the group consisting of standard deviation, mean, sample variance, range, root-mean-square, and rate of change. In one embodiment the rules are selected to detect events from the group consisting of signal spike, signal drift, signal bias, signal noise, signal stuck, signal hard over, cyclic signal, erratic signal and non-linear signal.

As illustrated above, the cited sections do not show safety response circuitry in the process device which is separate from two components between which a databus carries data. Therefore, the rejection should be withdrawn.

Independent claim 1 also includes a device interface which comprises a connection to the databus of the process device. The cited section of Eryurek (column 1, lines 44-45) read as follows:

A device in a process control system includes an input which receives a process signal. The device includes memory containing nominal parameter values and rules.

Clearly, this section does not show such a device interface. The Office Action further identifies column 4, lines 11-28 of Eryurek as showing a device interface which, “which comprises of [sic] communication between the component of the device and a microprocessor of the device.” The cited section of Eryurek (column 4, lines 11-28) generally describes a process device which implements a control function. That section reads as follows:

When process device 40 operates as a controller such as controller 8, device 40 includes control channel 56 having control element 18 such as a valve, for example. Control element 18 is coupled to microprocessor 46 through digital to analog converter 64, amplifier 66 and actuator 68. Digital to analog converter 64 digitizes a command output from

microprocessor 46 which is amplified by amplifier 66. Actuator 68 controls the control element 18 based upon the output from amplifier 66. In one embodiment, actuator 68 is coupled directly to loop 6 and controls a source of pressurized gas (not shown) to position control element 18 in response to the current I flowing through loop 6. In one embodiment, controller 10 includes control channel 56 to control a control element and also includes sensor input channel 54 which provides a diagnostic signal such as valve stem position, force, torque, actuator pressure, pressure of a source of pressurized air, etc.

However, again, this section does not show the claimed device interface. The cited section simply references a databus which communicates with a microprocessor of a process device.

The addition of the Flaemig and Meyer-Grafe references do not show all of the elements of the pending claims. Meyer-Grafe simply shows an external databus and Flaemig shows the use of an additional sensor to monitor a diaphragm seal.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment, including the Office Action's characterizations of the art, does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment or cancellation of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment or cancellation. Applicant reserves the right to prosecute the rejection claims in further prosecution of this or related applications.

In view of the above amendments and remarks, it is believed that the present application is in condition for allowance. Consideration and favorable action are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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